



The impacts of occupational stress on workers' health in long-term care facilities^a

As repercussões do estresse ocupacional na saúde de trabalhadores que atuam em instituições de longa permanência

Los impactos del estrés ocupacional en la salud de los trabajadores que laboran en instituciones de larga permanencia

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ABSTRACT

Objective: to comprehend the effects of occupational stress on the health of workers who provide care to older adults in long-term care facilities. **Method:** a qualitative approach was adopted, involving 38 workers from four long-term care facilities in Rio Grande do Sul State, southern Brazil. Data were collected using semi-structured interviews, analyzed through thematic analysis. **Results:** all participants were female: four nurses, 11 nursing technicians, and 23 caregivers. Recurrent occupational stress negatively affected their well-being, with physical effects such as insomnia and migraines. Psychological effects included emotional strain, anxiety attacks, depressive symptoms, and impaired concentration, while occupational consequences involved decreased productivity, professional dissatisfaction, and interpersonal conflicts, and social impacts reflected in restrictions in daily activities, family life, and self-care. **Final considerations and practical implications:** habitual exposure to occupational stress is associated with adverse health outcomes. The findings support the use of strategies to strengthen workers' resilience and adaptive capacity.

Keywords: Caregivers; Nursing; Occupational stress; Homes for the aged; Occupational health.

RESUMO

Objetivo: compreender as repercussões do estresse ocupacional na saúde de trabalhadores que atuam no cuidado às pessoas idosas residentes em instituições de longa permanência para idosos. **Método:** estudo qualitativo, com 38 trabalhadores de quatro instituições de longa permanência para idosos localizadas no Rio Grande do Sul (Brasil). Dados coletados por entrevistas semiestruturadas embasadas em roteiro elaborado pelas pesquisadoras. Depoimentos apreciados segundo análise temática. **Resultados:** todas as participantes eram do sexo feminino: quatro eram enfermeiras, 11 técnicas de enfermagem e 23 cuidadoras. Os trabalhadores vivenciam inúmeras situações estressoras, que impactam o seu bem-estar. Na dimensão física, as repercussões predominantemente compreendem insônia e enxaqueca. Na saúde mental, envolvem aumento da tensão emocional, desenvolvimento/agravamento de crises de ansiedade, sintomas depressivos e dificuldade de concentração. Na saúde ocupacional, relacionam-se a diminuição da produtividade, descontentamento com a profissão e conflitos interpessoais. Na saúde social, há restrição de atividades e prejuízos ao convívio familiar e ao autocuidado. **Considerações finais e implicações para a prática:** a vivência habitual do estresse ocupacional está associada ao desenvolvimento de condições adversas de saúde. Os achados deste estudo demonstram a necessidade de proporcionar aos trabalhadores estratégias para aprimorar sua capacidade de resiliência e adaptação frente aos estressores.

Palavras-chave: Cuidadores; Enfermagem; Estresse ocupacional; Instituição de longa permanência para idosos; Saúde ocupacional.

RESUMEN

Objetivo: comprender las repercusiones del estrés ocupacional en la salud de los trabajadores que se dedican al cuidado de las personas mayores residentes en instituciones de larga estadía para personas mayores. **Método:** estudio cualitativo, con 38 trabajadores de cuatro instituciones de larga estadía para personas mayores ubicadas en Rio Grande do Sul/Brasil. Datos recolectados mediante entrevistas semiestructuradas basadas en un guion elaborado por las investigadoras. Los testimonios fueron analizados según un análisis temático. **Resultados:** todas las participantes eran mujeres: cuatro eran enfermeras, 11 técnicas de enfermería y 23 cuidadoras. Los trabajadores experimentan numerosas situaciones estresantes que afectan su bienestar. En la dimensión física, las repercusiones comprenden predominantemente insomnio y migraña. En la salud mental, implican un aumento de la tensión emocional, desarrollo o agravamiento de crisis de ansiedad, síntomas depresivos y dificultad de concentración. En la salud ocupacional, se relacionan con la disminución de la productividad, descontento con la profesión y conflictos interpersonales. En la salud social, hay restricción de actividades y prejuicios para la convivencia familiar y el autocuidado. **Consideraciones finales e implicaciones para la práctica:** la vivencia habitual del estrés ocupacional está asociada al desarrollo de condiciones adversas de salud. Los hallazgos de este estudio demuestran la necesidad de proporcionar a los trabajadores estrategias para mejorar su capacidad de resiliencia y adaptación frente a los factores estresantes.

Palabras clave: Cuidadores; Enfermería; Estrés laboral; Hogares para Ancianos; Salud laboral.

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INTRODUCTION

Aging is a continuous and dynamic process marked by organic, functional, and psychological changes that increase health vulnerability and directly affect the lives of older adults.^{1,2} Consequently, these changes and the demographic transition require social and public health services to adapt and respond adequately to these demands. Care for individuals experiencing senescence is generally provided within long-term care facilities for older adults (LTCFs).^{3,4}

The LTCFs are governmental or non-governmental residential institutions that offer collective housing for individuals aged 60 years or older, under conditions intended to ensure freedom, dignity, and citizenship.⁵ However, residents often present complex and continuous care needs, which may increase workers' exposure to occupational stress and professional burnout.⁶

Conceptually, occupational stress are psychological disturbances or mental suffering associated with work experiences that involve difficulties in adapting to potential stressors.⁷ Occupational stressors may include interpersonal conflicts, role ambiguity, double work shifts, pressure from supervisors, and changes in the work environment.⁸

Prolonged exposure to these adverse conditions can lead workers to progress through cumulative phases of stress, namely alertness, resistance, and exhaustion, culminating in peak stress levels. During the alertness phase, corticosteroids and adrenaline are released into the bloodstream, triggering responses such as irritability, sadness, anxiety, reduced concentration, absenteeism, heart palpitations, and feelings of insecurity. In the resistance phase, the body attempts to preserve homeostasis and maintain functional balance. In the exhaustion phase, the organism is profoundly depleted, resulting in health problems and functional impairments.⁹

A study examining factors related to occupational health and quality of work life among nurses providing long-term care evidenced occupational stress, professional burnout, high turnover, job dissatisfaction, and self-stigmatization as indicators of systemic shortcomings affecting professionals in this context.¹⁰ Moreover, the literature is limited on the psychological health of nurses working in long-term care settings, including LTCFs.

Continuous and prolonged exposure to stressful work situations can produce personal, social, and economic repercussions that affect multiple dimensions of workers' lives, thereby posing a public health concern.^{11,12} Therefore, considering the synergistic relationship between occupational stress and workers' lives in LTCFs, this study aimed to comprehend the effects of occupational stress on the health of workers who provide care to older adults in LTCFs.

METHOD

This qualitative, descriptive, and exploratory study followed the recommendations of the Consolidated Criteria for Reporting Qualitative Research checklist to ensure clarity and rigor in reporting.¹³ The participants were nursing professionals with graduate degrees and technical qualifications, as well as caregivers,

affiliated with four LTCFs in central and northwestern Rio Grande do Sul State (southern Brazil). In addition to these workers, the institutions employed other professionals who provided care to older adults, such as nutritionists and physical therapists.

The LTCF I is a philanthropic institution that provides care for 53 older adults and employs one nurse, seven nursing technicians, and two caregivers. The LTCF II is a private institution that cares for 23 older adults and has two nurses, five nursing technicians, and seven caregivers. The LTCF III, also private, houses 12 older adults and employs two nurses, three nursing technicians, and three caregivers. The LTCF IV is a private institution that did not provide information on the number of residents; it employs two nurses, two nursing technicians, and five caregivers. A total of 41 workers were affiliated with the four LTCFs. The nurse managers from three institutions, who did not provide direct care, were excluded from the study.

The inclusion criteria were employment for more than 30 days at an LTCF, professional role within the nursing team or as a caregiver, and direct involvement in the care of older residents. Workers who were absent during the data collection period due to health-related leave or maternity leave were excluded. A total of 38 workers met the inclusion criteria and were included in the study, with no refusals or losses throughout the study period.

Data collection was conducted between May–August 2024 by a trained seventh-semester nursing undergraduate student with experience in qualitative data collection. Participants' sociodemographic, clinical, and occupational profiles were obtained using a structured questionnaire. Subsequently, semi-structured interviews were conducted with a guide comprising ten questions focused on the participants' daily work routines, focused on stressful situations and the perceived effects of occupational stress on their work activities.

A pilot test was conducted at one of the institutions to assess the interview guide's adequacy. This phase comprised three interviews to refine the instrument and identify potential inconsistencies. Although minor adjustments were made to the questioning approach to improve participant comprehension, the interview content remained unchanged. Consequently, these participants were retained, and their interviews were included in the study corpus.

The interviews were scheduled by telephone with institutional representatives. They took place in person and individually during each worker's shift, in a suitable location and at a time that did not interfere with institutional routines. Interview duration ranged from approximately three to 15 minutes, averaging eight minutes. All interviews were audio recorded and fully transcribed. After transcription in Microsoft Word, the study corpus consisted of 81 pages. To ensure anonymity, participants were identified by the letter "I" followed by a number that did not correspond to the interview sequence.

The interview data were analyzed using thematic analysis,¹⁴ encompassing a horizontal and exhaustive reading of the material, followed by cross-sectional readings to define categories, group similar segments, and identify connections among them. A final integrative analysis was then conducted. Categorization was guided by a deductive category, interfaces of occupational

stress with worker health: effects on well-being, from which subcategories were derived based on an adaptation of the dimensions proposed by the National Wellness Institute: physical, mental, occupational, and social health.¹⁵ This framework was adopted as it offers a broader view of the multiple, interrelated dimensions of worker's health.

The study adhered to the ethical standards established in Brazil's National Health Council Resolutions no. 466/2012¹⁶ and 510/2016,¹⁷ which govern research involving humans. This article presents findings from a larger study entitled "*Estresse ocupacional em trabalhadores que atuam no cuidado a pessoas idosas em instituição de longa permanência*" [Occupational stress among workers who provide care to elderly individuals in long-term care institutions]. The parent project received approval from the institutional research ethics committee (CAAE no. 77947224.2.0000.5346 and protocol no. 6.702.326).

RESULTS

Thirty-eight female workers participated in the study, with ages ranging from 19 to 60 years. Four participants (10.52%) had an undergraduate degree, two (5.26%) had not obtained a degree, 27 (71.05%) had completed high school or technical training, four (10.52%) had not completed high school, and one (2.63%) had completed elementary school.

Employment at the institution spanned 1–168 months (median = 17.5). Four participants (10.52%) were nurses, 11 (28.94%) were nursing technicians, and 23 (60.52%) were caregivers. A 42-hour workweek was most common (34.21%), with 48 hours and 40 hours each at 18.42%. Afternoon shifts predominated (36.84%), with morning and night shifts each accounting for 31.57%. Thirty participants (78.94%) reported experiencing conflicts in their daily work.

The statements illustrating the effects of occupational stress across interrelated dimensions of worker's health are presented in Figure 1.

Interfaces of occupational stress with worker health: Effects on well-being

Physical health

The most common effect on physical health was sleep disturbance, particularly insomnia. This condition results from prolonged sleep-onset latency and poor sleep quality related to the internalization of daily stress and work-related agitation. Sleep disorders were also related to the use of medication to manage sleep, adopted as coping mechanisms to reduce the negative effects of stress.

The adverse effects of occupational stress extended to other physiological systems. In the neurological system, prolonged exposure to stressors was associated with migraines. Occupational stress was empirically linked to chronic noncommunicable diseases, such as systemic arterial hypertension, which require long-term pharmacological treatment to reduce and prevent stress-related complications. Moreover, gastrointestinal manifestations, e.g.

gastritis, and associations between chronic stress and endocrine disorders were reported, including thyroid dysfunction. In the integumentary system, stress was empirically related to psoriasis, an autoimmune condition, and with alopecia.

Mental health

The long-term internalization of stress was described as a process that increases somatization, contributing to the development of health problems and suggesting that mental health can manifest in multiple ways in the physical body. In addition, stress was linked to the onset and worsening of anxiety attacks, with more severe symptoms. Similarly, depression developed over time as adverse experiences accumulated in their professional life.

Difficulty concentrating on attention-demanding tasks emerged from stressful work routines and had direct effects beyond the workplace, including difficulties with studying.

Social health

Regarding social health, the main issue was the spillover of work-related stress into life outside the workplace. Physical and psychological symptoms of stress restrict leisure activities, leading workers to remain at home during their free time rather than engage in recreational pursuits.

Additionally, stress disrupts family life. Suppressing emotions in the workplace creates emotional overload that is carried into family life, where it can emerge as irritability or tension and disrupt relationships. Extended working hours, often on weekends and holidays, minimizes opportunities for family interaction, weakening bonds and limiting experiences that support mutual support and well-being.

Exhausting institutional routines and ongoing stress undermined workers' ability to care for themselves, fostering a negative and unsatisfactory perception of their own basic needs. Stress was associated with a sedentary lifestyle or reduced physical activity, as work-related fatigue diminishes motivation and energy for other activities, confining workers to a monotonous routine, further deepening the negative experience of work.

Occupational health

In the occupational health domain, work-related stress affected how workers provided care to older adults, with decreased productivity as the main consequence. This pattern reveals an intrinsic relationship between job satisfaction, occupational stress, and workers' ability to perform their tasks, which can be compromised. As a result, the institutional routine of care for older adults may be disrupted, with implications for workers' occupational health.

Moreover, participants reported interpersonal conflicts that interfered with teamwork and the continuity of care, reflecting a synergistic relationship between occupational stress and workplace conflict. These aspects of professional life, shaped by the ongoing and daily experience of stress, can ultimately lead to dissatisfaction with the profession, as expressed by the workers in this study.

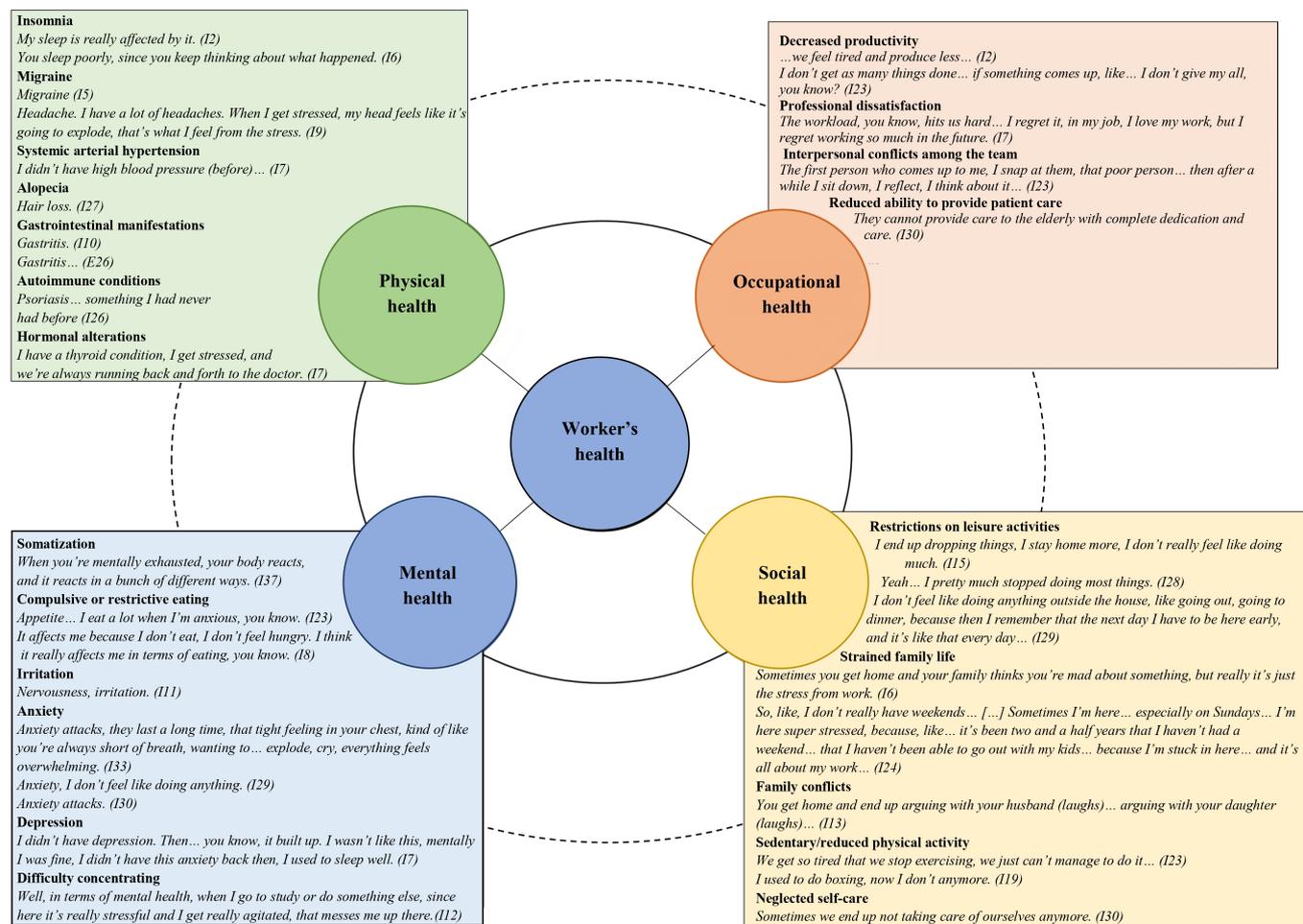


Figure 1. Overview of the effects of occupational stress on multiple dimensions of workers' health.

DISCUSSION

This study aimed to describe the effects of stress on workers' health, highlighting the complexity inherent in work duties within the context of LTCFs and their implications for different health dimensions. The findings show that these workers experience various stressful situations in their routine care of institutionalized older adults, leading to effects on their physical, mental, occupational, and social health that directly compromise their well-being. An individual's well-being is fundamental to personal and professional development.¹⁸ It involves sustained positive emotions, skill use, and goal attainment, resulting in professional fulfillment.

In the physical health dimension, most participants reported insomnia, attributed to difficulty falling asleep due to internalized work-related stress. Studies^{19,20} have linked insomnia to physical, psychological, and social illness, as well as to reduced quality of life, leading to stress, irritability, aggressiveness, sadness, lack of enthusiasm, and low energy. Frequent headaches and migraines were also prominent among participants, in line with previous findings.²¹ These symptoms are related to neurobiological changes induced

by chronic stress, such as the hypothalamic-pituitary-adrenal axis' activation, which increases susceptibility to migraines.²²

Systemic arterial hypertension and gastritis were also associated with chronic stress. A Brazilian study²³ found a statistically significant relationship between occupational stressors and systemic arterial hypertension, mediated by increased catecholamine release that elevates heart rate and blood pressure. Gastritis has likewise been linked to more advanced and prolonged stress exposure.²⁴

Furthermore, stress can stimulate compulsive eating, i.e., excessive food intake over a short period of time. This phenomenon is possibly related to chronic stress via the release of appetite-stimulating hormones.²⁵ There is also empirical evidence of an association between chronic stress and autoimmune diseases, such as psoriasis. This relationship has been reported in the literature and reflects stress-induced inflammations, which promotes free-radical release, thereby damaging cellular components and triggering autoimmune responses.²⁶

In a more detailed analysis of this dimension, a previous study²⁷ indicated that stress unfolds in three phases, the first of which reflects the body's defensive response, with tachycardia,

fatigue, and insomnia. In the second phase, workers have difficulty disengaging from work and show increased irritability. In the third phase, exhaustion or burnout occurs, coupled with hypertension, depression, and dermatological disorders. Participants in the present study exhibited symptoms from all three phases, demonstrating that LTCF workers are exposed to both acute and chronic effects of stress.

In the mental health dimension, the main effects were agitation, nervousness, anxiety, and reduced resilience when facing stressful situations. As workers developed symptoms of psychological distress (e.g., insomnia, irritability, forgetfulness, and difficulty concentrating, as reported in their testimonies), these were accompanied by increasing exhaustion in dealing with work-related stressors and growing frustration.²⁸

In Germany, 39.2% of nurses working in nursing homes expressed moderate to severe stress, as well as clinically significant symptoms of anxiety (36.5%) and depression (41.4%), with higher stress levels among women.²⁹ These findings are consistent with strong effects of stress on mental health and with the close association between incompatible demands, the inability to meet established care standards, and Burnout Syndrome in LTCF workers.³⁰

In the social health dimension, stress led to restrictions in social and leisure activities, directly affecting the quality of family relationships. Limited social interaction poses a health risk comparable to hypertension and obesity.³¹ Therefore, strong family ties offer protection from the stress caused by everyday difficulties and constitute an important coping mechanism.³²

Stress has also been linked to sedentary behavior and compromised self-care. Moderate-to-vigorous physical activity is strongly related to lower stress levels and improved overall well-being,³³ as well as to a lower prevalence of common mental disorders.³⁴ High workloads and negative feelings and sensations directly affect the healthcare professionals' self-care.³⁵

Stress adversely affects working life by reducing productivity, increasing interpersonal conflict, and compromising care for older adults. Highly stressed workers tend to perform less effectively³⁶ and, in this study, affect the quality of care provided to older adults. Interpersonal conflicts may further create internal tensions, disrupt teamwork, and strain professional relationships.³⁴

Stress affects physical, mental, occupational, and social health, underscoring the need for coping strategies. Coping draws on personal, social, and spiritual resources.³⁷ Appropriate stress management and the use of effective coping mechanisms are essential for controlling stress levels and preventing negative outcomes.³⁷ These strategies include relaxation techniques such as meditation and auriculotherapy,³⁸ physical activity, strong social support in the workplace, and leisure activities.³⁴

FINAL CONSIDERATIONS AND PRACTICAL IMPLICATIONS

Workers reported that habitual exposure to occupational stress contributes to the development of various adverse physical

and mental disorders that affect their occupational and social functioning and directly compromise their quality of life and well-being. Given the impact on LTCF workers' lives, strategies are necessary to strengthen their resilience and help them cope more effectively with daily stressors. Organizational structures should be adapted to promote occupational health and reduce the negative effects of stress on workers' physical and mental well-being.

This study's primary limitation was the homogeneity of the sample, which included only female workers and may not reflect the broader workforce, thereby limiting the generalizability of the findings. To gain a broader understanding of occupational stress, future studies should consider the multiple and interrelated dimensions of worker health.

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DATA AVAILABILITY RESEARCH

The data are available upon reasonable request (via email to the corresponding author). Access is restricted due to the data being part of an ongoing umbrella research project.

CONFLICT OF INTEREST

None.

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